

Three New Species of Dolichopodidae from North America and Cuba, with Notes on *Diaphorus leucostola* Loew and its Allies (Diptera).

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***Condylostylus nigritiba* new species.**

♂: Length 5 mm. Face wide, narrowed below, blue, more green on the sides, suture near its middle, lower part with thick white pollen, which extends more thinly to a little above the antennae, face very obtusely pointed on lower edge; front shining blue; palpi and proboscis black; antennae black, bristles on lower side of second joint longer than antenna, third joint nearly round; arista dorsal, as long as head height; beard rather short, white.

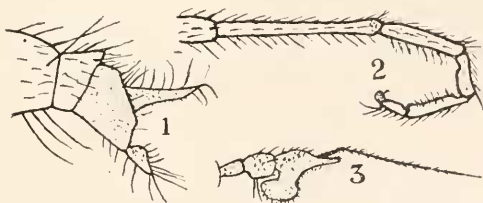


Fig. 1, *Condylostylus nigritiba* new species, hypopygium of male.

Fig. 2, *Mesorhaga ornatipes* new species, fore tarsus of male.

Fig. 3, *Diaphorus leucostola* Loew, antenna of male.

Thorax green, dorsum with white pollen along the front and bronze reflections on anterior half, blue on posterior part; scutellum blue with two pair of large bristles. Abdomen shining green with black incisures, which cover more than half of the segments towards tip of abdomen and become coppery, sides and venter of anterior half with rather short, white hair; hypopygium (fig. 1) small, black, its outer appendages black, finger-like, as long as hypopygium, with rather long hair on outer side and at tip.

Coxae and femora green; anterior coxae with long, white hair and two slender black bristles; tips of fore and middle femora yellow, all femora with white hair below, which is as long as width of femora; fore and middle tibiae yellow, former with three or four bristles on lower posterior edge, these are slender and nearly as long as second joint of fore tarsi; middle tibiae with extreme tip blackened; hind tibiae and all tarsi wholly black; fore basitarsi with three bristles below, the one at apical

fourth about as long as those on fore tibiae, the one at basal fourth very short; second joint of fore tarsi with a row of spine-like hairs below, which are as long as diameter of joint and continued on next joint, where they are much shorter: joints of fore tarsi as 72-30-22-16-8; of middle ones as 77-30-21-11-7; of posterior pair as 69-32-19-13-9. Calypters and their cilia black; knobs of halteres wholly yellow, petiole black.

Wings grayish with the usual two blackish cross-bands united along the costa as far back as third vein, beginning well beyond tip of first vein and extending to half way between tips of second and third veins, basal band quite wide and ending abruptly at fifth vein, apical band equally wide and ending a little back of fourth vein, hyaline space between them of the same width as the bands; fork of fourth vein at a little less than a right angle with basal part of fourth vein, upper bend but little rounded, last part running nearly straight to wing margin near tip of third vein, which bends backward at tip; last section of fifth vein nearly straight and scarcely reaches wing margin; fourth vein from cross-vein to fork as 54, from fork to wing margin 30; cross-vein as 38, last section of fifth vein 31.

♀ : Differs from male in having fore coxae, all femora and tibiae yellow, knees of hind legs black; apical fourth of hind tibiae black, shading into the yellow above; white hair on fore coxae short; bristles on second joint of antennae not longer than antenna; fore tarsi yellowish on basal half, bristles on first joint shorter; fore tibiae with very short bristles; femora with very short pale hair below; abdomen blue posteriorly or wholly green, shining, with scarcely any white hair at base below; color of head and thorax and the wing characters as in the male.

Described from three male and two females, taken by S. C. Bruner, at Santiago de los Vegas, CUBA. *Type* in the author's collection.

This species is related to *similis* Aldrich, from Mexico, but differs in having the hind tibiae wholly black.

Mr. Bruner reports this species as abundant everywhere around Santiago.

Mesorhaga ornatipes new species.

♂ : Length 3 mm. Face green, but wholly opaque with white pollen when viewed obliquely; front shining green, with one

black bristle at outer third near middle and four white bristle-like hairs on each side near vertex, oceller tubercule with a pair of black, rather short, straight bristles and several delicate white hairs; palpi and proboscis yellow with white hair; antennae black, bristles on second joint white, about as long as third joint; third joint round, brownish, arista dorsal, nearly bare, black; orbital cilia and rather scanty beard white.

Thorax and scutellum shining green, pleurae with a little white pollen; bristles of thorax black, acrostichal bristles rather long, in two irregular rows; five dorsocentral bristles; abdomen green with bronze and reddish coppery reflections, dorsum with minute white hairs; sides of first segment with long white hair; hypopygium and its appendages black, outer lamellae not very wide, but nearly as long as hypopygium, a little enlarged at base.

Coxae black or greenish with white hair, fore coxae yellow at tip; all femora and tibiae pale yellow with their hairs partly black; extreme tip of hind tibiae black; all femora with long white hair below, those on middle femora in two rows, the posterior row short, anterior row with some of the hairs longer than width of femora; middle tibiae with a very small bristle above near basal third; all tarsi blackened from tip of first joint; fore tarsi (fig. 2) with bristles below on second joint, third joint shorter than fourth with little spines below; hind tarsi with last two joints a little widened and flattened; length of fore tibiae as 57, joints of fore tarsi as 36-17-8-12-5; middle pair as 49-18-11-9-6; joints of posterior pair as 33-28-16-10-6; last two joints as 4 wide. Calypters white with black edge and long white cilia; knobs of halteres yellow.

Wings nearly hyaline; last section of fourth vein not as abruptly bent as in some species, the bend rounded; fourth vein from cross-vein to bend as 23, from bend to tip 62, cross-vein 23, last section of fifth vein 29; third vein nearly straight; fifth vein straight with an angle at cross-vein, its last section straight but running downward to hind margin of wing.

Described from two males, taken by S. C. Bruner and V. L. Bouele, June 6, 1930, at Manacas Station, E. E. A. de Clara CURA. *Holotype* in the author's collection.

This is much like *juvanda* Becker, Paraguay, but in that the hind tarsi are as thick as tibiae, with last two joints widened; fore coxae black only at base. The Georgia female he places with the pair from Paraguay is more likely to be this species, the females of the two species must be very nearly alike.

DIAPHORUS LEUCOSTOLA Loew and allied species.

Among the North American *Diaphorus* there is a group having the third antennal joint more or less like that of *leucostola* Loew (fig. 3), that is with a point projecting from the upper apical corner, the front wide, nearly as wide as the face, color of body and size about alike in all. These are separated by the color of the legs and feet, size of pulvilli and bristles at tip of abdomen, and length and color of palpi. The seven forms may be separated by the following key:

- 1 Second antennal joint cutting into third on its upper part, that is the lower basal corner of third joint extending more or less basally beyond apical end of second joint.3
 Second antennal joint not cutting into base of third at all.2
- 2 Hind tibiae wholly black, (Idaho; Nevada; Colorado),
aldrichi Van Duzee
 (Montana)*albifacies* Parent.
 Hind tibiae largely yellow. (Pennsylvania),
similis Van Duzee.
- 3 Hind tibiae yellowish brown; second antennal joint cutting into third but little, about as long as wide, (California),
occidentalis V. D.
 Hind tibiae brownish black; second antennal joint cutting half, or more than half its length into third, longer than wide, (Ontario)*quadratus* Van Duzee.
 Hind tibiae yellow, sometimes with a black tip; second antennal joint cutting deeply into base of third.4
- 4 Dorsum of thorax with a median coppery vitta, (Virginia),
vittatus Van Duzee
 Thorax without a vitta, (*leucostoma* Loew)5
- 5 Hind tibiae wholly yellow, hind tarsi yellow at base. (North America; Guatemala).*leucostoma* Loew.
 Hind tibiae blackish brown at tip, hind tarsi wholly black, (North America),
leucostoma variety *infuscatus* Van Duzee

I find no difference between *albifacies* Parent, 1929, and *aldrichi* Van Duzee, 1915.

Argyra (Leucostola) basalis new species.

♂ : Length 5 mm. Face narrow, face and front wholly silvery white pollinose; palpi nearly round, yellow; proboscis black; antennae black, first joint bare above, third joint scarcely twice as long as first two taken together, its tip rounded; arista nearly twice as long as the antenna, in-

served just above the tip of third antennal joint; posterior orbits with a few black cilia above and delicate white cilia on lower third.

Dorsum of thorax bright shining green with thin white pollen along the front, and thick silvery white pollen on the side in front of the wings; pleura black with rather thin white pollen, its posterior edge infuscated; scutellum with one pair of rather small marginal bristles. First three abdominal segments yellow with only the extreme apical margins a little blackish, fourth segment dark yellow with basal half blackish, last two segments black; last three segments thickly covered with silvery white pollen; hairs of abdomen black. Hypopygium black with yellow appendages, which are formed about as in *involuta* Van Duzee (fig. 31, pl. i, Proceedings of the U. S. National Museum, Vol. 66, Article 23), except that the outer lamellae are more triangular.

Coxae, femora, tibiae and fore and middle tarsi wholly pale yellow, except the tarsi which are slightly brownish towards tip, hind tarsi brown; anterior surface of fore tarsi with a few delicate, yellowish white hairs and two large and three small black bristles, one of the large bristles is near the middle of outer edge, all other bristles are near tip; fore and hind femora with delicate yellow hairs below, those on anterior pair nearly as long as width of femora, those on posterior pair shorter; joints of hind tarsi as 37-37-25-17-9. Calypters yellow with the tip broadly black, their cilia yellow; halteres pale yellow.

Wings grayish; third vein bent backward towards tip; last section of fourth vein only slightly bent before its middle, nearly parallel with third vein, its tip just back of the apex of wing; last section of fifth vein as 55, cross-vein as 19.

Described from one male taken by the author, June 24, 1923, at Little Valley, New York. *Holotype* in the author's collection.

This would run in the table of species of *Leucostola* in the Proceedings of the U. S. National Museum, Vol. 66, Article 23, page 6, to *flavicoxa* Van Duzee, but in that species the hind tibiae are brownish yellow, only the extreme base being yellow, fore coxae with one or two blackish bristles, the hypopygial appendages are of very different form and the abdomen also of different color.